

عنوان مقاله:

Effect of Fenugreek Deeds on Serum Metabolic Factors and ICAM-1 (Intercellular adhesion molecule-1) levels in type 2 Diabetic Patients

محل انتشار:

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نویسندگان:

مریم رف ر ف -
Nutrition Research Center, Dept of Nutrition, Faculty of Nutrition, Tabriz University of Medical Sciences, Tabriz, Iran

مینا ملکیان -
Nutrition Research Center, Dept of Nutrition, Faculty of Nutrition, Tabriz University of Medical Sciences, Tabriz, Iran

محمد اصغری جعفر آبادی -
Tabriz Health Service Management Research Center, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran

اکبر علی عسگرزاده -
Internal medicine endocrine section, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

سمیرا پورمرادیان -
Nutrition Research Center, Faculty of Nutrition, Tabriz University of Medical Sciences, Tabriz, Iran

خلاصه مقاله:

Background and Objectives: Diabetes mellitus (DM) especially type 2 is one of the main causes of morbidity in developing countries such as Iran. Recently, fenugreek seeds as medical plant have been considered for treatment of diabetes. Therefore, we conducted this study to evaluate the effects of fenugreek seeds on serum metabolic factors and ICAM-1 levels in type 2 diabetic patients. **Materials and Methods:** This triple-blind randomized controlled clinical trial was conducted on 88 T2DM patients. Subjects in fenugreek seeds (n=44) and placebo (n=44) groups consumed 10 g/d of powdered whole fenugreek seeds or 5 g/d of wheat starch before two meals for 8 weeks. Anthropometric measurements, dietary records and fasting blood samples were collected at the baseline and at the end of the trial. **Results:** BMI, energy and protein intake were significantly different between placebo and intervention groups at the beginning of the study. Fenugreek seeds significantly decreased fasting blood glucose ($P=0.007$), HbA1c ($P=0.001$), serum levels of insulin ($P=0.03$), and homeostatic model assessment for insulin resistance ($P=0.004$) in trial group compared to the placebo group. No significant changes was seen in ICAM-1 levels ($P=0.64$). **Conclusion:** Fenugreek seeds improved glucose metabolism. There was no significant difference in ICAM-1 levels in our intervention, regarding dose and time. It seems that fenugreek seeds may be useful in controlling blood glucose and its complications in type 2 diabetic patients. **References** 1- Medical nutrition therapy for diabetes mellitus and hyperglycemia of nondiabetic origin. In: Mahan LK, Escott-Stump S. Krausechr(۱۳۹)'s food and nutrition therapy Missouri: Saunders Elsevier. Diabetes Review. ۲۰۰۸: ۷۶۸-۸۰۴. ۲- Harati H, Hadaegh F, Saadat N, Azizi F. Population-based incidence of type 2 diabetes and its associated risk factors: results from a six-year cohort study in Iran. BMC Public Health. ۲۰۰۹ ۹: ۱۸۶. ۳- Eidi AEM, Sokhteh M. Effect of fenugreek (Trigonella foenum-graecum. L) seeds on serum parameters in normal and streptozotocin-induced diabetic rats. Nutrition Research. ۲۰۰۷ ۲۷: ۷۲۸-۳۳. ۴- Kriketos

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Key words: Fenugreek seed, Diabetes mellitus, Metabolic factors, ICAM-۱

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